

# ThermoFoam CC-2000 - TDS

ThermoFoam CC-2000  
Spray Foam Insulation  
Thermal & Moisture Protection



## **Product Description:**

ThermoFoam CC-2000 spray foam insulation is a spray-applied, two component, closed cell polyurethane foam insulation system. The product is formed by the reaction of proprietary resin blend and polymeric methylene diphenyl diisocyanate. The resin blend is comprised of Polyols, additives, fire retardants and low global warming potential blowing agents. The proprietary system is specially formulated to reduce reaction exotherm during application and provide improved dimensional stability.

The spray applied nature of ThermoFoam CC-2000 spray foam allows the material to flow into voids and seal cracks, expanding to form a monolithic structure with high R-value (resistance to heat flow). ThermoFoam CC-2000 spray foam can form various control layers for buildings and structures: insulation, air barrier, moisture retarder and weather barrier.

## **Product Uses:**

Cold Storage Walls Attics  
Crawlspace Tanks Pipe Insulation Exterior Applications Ducts Foundations  
Concrete slab

## **ASTM E-84:**

ThermoFoam CC-2000 spray foam is an ASTM E-84 (NFPA 255, UL723) class 1 (Class A) spray foam insulation.

## **Thermal Barriers:**

ThermoFoam CC-2000 spray foam must be separated from the interior of the building (occupied space) by an approved 15 minute thermal barrier such as ½"

inch gypsum board or other equivalent material. Consult local building codes for requirements and restrictions.

**Chemical Attributes: Component Viscosity (25°C) Density**

Isocyanate 200 cps 10.3 lbs/gal - Resin 700 cps 10.3 lbs/gal

**Typical Physical Attributes:**

| Property†                                 | Test Method                | Value                              |
|-------------------------------------------|----------------------------|------------------------------------|
| Apparent Density                          | ASTM D-1622                | 2 lbs/ft <sup>3</sup> (nominal)    |
| R-value (aged)                            | ASTM C-518                 | 7.0 R/in                           |
| Compressive Strength                      | ASTM D-1621                | nom. 25 lbs/in <sup>2</sup>        |
| Tensile Strength                          | ASTM D-1623                | nom. 50 lbs/in <sup>2</sup>        |
| Closed Cell Content                       | ASTM D-6226                | > 90% (vol.)                       |
| Water Absorption                          | ASTM D-2842                | < 2%                               |
| Water Vapor Permeance                     | ASTM E-96                  | < 2 perm-inches                    |
| Fungi Resistance                          | ASTM C-1338                | No growth                          |
| Flame Spread Index                        | ASTM E-84                  | < 25                               |
| Smoke Developed Index                     | ASTM E-84                  | < 450                              |
| Dimensional Stability,<br>-20°F           | ASTM D-2126                | < 5% Change                        |
| Dimensional Stability,<br>+158°F          | ASTM D-2126                | < 10% Change                       |
| Dimensional Stability,<br>+158°F & 100%RH | ASTM D-2126                | < 10% Change                       |
| Ignition Barrier                          | ICC ES AC377<br>Appendix X | Pass no coating                    |
| Thermal Barrier                           | NFPA 286                   | Pass DC315 89 ft <sup>2</sup> /gal |
| Global Warming<br>Potential               | n/a                        | 1                                  |

*† These values are typical. However values will vary and should not be considered part of the product specifications. It is imperative that the trained applicator read and understand this technical datasheet and SDS to process the material correctly and understand environmental and equipment limitations.*

**Storage & Shelf Life:**

ThermoFoam CC-2000 spray foam components have an optimal shelf life of 6 months when stored in unopened containers at temperature between 50 – 70°F. Excessively high temperatures may reduce optimal shelf life. Store material at 70 – 90°F for 48 hours prior to application of the product.

**Environmental Considerations:**

ThermoFoam CC-2000 spray foam insulation is available in two grades for various environmental conditions:

**AMBIENT TEMPERATURE**

Regular 50 - 110°F / Winter 30 - 80°F

Wind speeds in excess of 10 mph may cause loss of exotherm or cause overspray onto adjacent objects or structures. It may be necessary to use wind screens.

**Substrate Preparation:**

All surfaces must be clean and dry, free of dirt, oil, solvents, grease and loose particles for optimal adhesion. ThermoFoam CC-2000 spray foam bonds tenaciously to most clean substrates. Moisture content of wood products should be < 18% and concrete must age at least 28 days before application of ThermoFoam CC-2000 spray foam can occur. Consult SES Foam for specific recommendations on primers or substrates.

**Service Temperature:**

ThermoFoam CC-2000 spray foam insulation is designed to be used in ambient temperatures from -40°F and 200°F, 220°F intermittent. It is strongly recommended that test sprays be conducted before installation for use in extreme temperatures.

**SPF Processing Parameters:**

ThermoFoam CC-2000 spray foam is designed to be applied by trained contractors using high pressure, plural component spray proportioners. The spray proportioner must be able to maintain the designed temperature and pressure for Nexseal™

2.0 LE spray foam products:

A/B/Hose Temperature 120 - 140°F A/B Dynamic Pressure 1000 - 1500 lbs/in<sup>2</sup>  
Optimal spray settings will vary with proportioner, hose dimensions, gun configuration and ambient conditions. It is critical for sprayers to understand the limitations associated with their equipment.

**Pass thickness:**

ThermoFoam CC-2000 spray foam should be applied at a minimum thickness of ½ inch and a maximum thickness of 4 inches. If greater than 4 inch thickness is desired, sprayers should wait a minimum of 15 minutes between passes. For substrates with sensitivity to heat like plastic or metal, tests should be done to understand the effect of the SPF exotherm on the material. In some cases putting on a flash coat first is recommended to prevent any adverse effects on the substrates.

**Safety and Handling Information:**

It is critical to read and become familiar with the Safety Datasheets prior to working with ThermoFoam CC-2000 spray foam liquid components. During application respiratory protection is required for the applicator and bystanders or helpers. For more information consult Safety Datasheets, [www.sesfoam.com](http://www.sesfoam.com), or [www.spraypolyurethane.org](http://www.spraypolyurethane.org)

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